

What is claimed is:

1. A method of detecting the presence of an antibody directed against a ganglioside in a subject comprising:
 - (a) contacting a liquid sample from the subject with the ganglioside, such ganglioside being affixed to at least two separate solid particles, under conditions permitting the antibody if present in the sample to form a complex with the ganglioside, which complex comprises such solid particles; and
 - (b) detecting the presence of any complex formed in step (a), wherein the presence of such complexes indicates the presence of the antibody in the subject.

2. A method of detecting in a subject the presence of at least two different antibodies, each of which antibodies is directed against a different type of ganglioside comprising:
 - (a) contacting a liquid sample from the subject with one such type of ganglioside, such

ganglioside being affixed to at least two separate solid particles, under conditions permitting the antibody directed against said type of ganglioside if present in the sample to form a complex with the ganglioside, which complex comprises such solid particles;

(b) contacting such liquid sample with a different type of ganglioside, such different type of ganglioside being affixed to at least two separate solid particles, under conditions permitting the antibody directed against such different type of ganglioside if present in the sample to form a complex with such different type of ganglioside, which complex comprises such solid particles; and

(c) detecting the presence of any complex formed in step (b) and any complex formed in step (c), wherein the presence of complexes formed in both step (b) and step (c) indicates the presence in the subject of such different antibodies.

3. The method of claim 2, wherein steps (a) and (b) are performed simultaneously.

4. The method of claim 2, wherein the solid particles
having affixed thereto said one such type of
ganglioside are the same color and the solid
5 particles having affixed thereto said different type
of ganglioside are of a different color.

5. The method of claim 1 or 2, wherein the antibody is
directed against more than one ganglioside.

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6. The method of claim 1 or 2, wherein the antibody is
directed against one ganglioside.

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7. A method of quantitating the amount of an antibody
directed against a ganglioside present in a subject
comprising:

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(a) contacting a plurality of identical liquid
samples from the subject with the ganglioside,
each such sample comprising the ganglioside
affixed to at least two separate solid
particles, such particles having affixed
thereto a predetermined amount of such
ganglioside, wherein the predetermined amount
used to contact each said sample is different,

under conditions permitting the antibody if present in the sample to form a complex with the ganglioside, which complex comprises such solid particles; and

- 5 (b) detecting the presence in each such sample of any complex formed in step (a), and correlating such detection of complexes in each such sample with a predefined reference standard indicative of the amount of the antibody present in the
- 10 subject so as to quantitate the amount of the antibody present in the subject.

8. A method of quantitating the amount of an antibody directed against a ganglioside present in a subject
- 15 comprising:

- (a) contacting a plurality of liquid samples from the subject with the ganglioside, each such sample being differently diluted and such
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- 20 ganglioside being affixed to at least two separate solid particles, such particles having affixed thereto a predetermined amount of such ganglioside, wherein the predetermined amount used to contact each said sample is the same, under conditions permitting the antibody if

present in the sample to form a complex with the ganglioside, which complex comprises such solid particles; and

- 5 (b) detecting the presence in each such sample of any complex formed in step (a), and correlating such detection of complexes in each such sample with a predefined reference standard indicative of the amount of the antibody present in the subject so as to quantitate the amount of the
- 10 antibody present in the subject.

9. The method of claim 1, 2, 7 or 8, wherein the liquid sample is human sera.
- 15 10. The method of claim 1, 2, 7 or 8, wherein the liquid sample is chosen from the group consisting of plasma, saliva, tears, mucosal discharge, urine, peritoneal fluid, cerebrospinal fluid, lymphatic
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- 20 fluid, bone marrow, tissue, lymph nodes or culture media.
11. The method of claim 1, 2, 7 or 8, wherein the solid particles comprise polystyrene latex.

12. The method of claim 1, 2, 7 or 8, wherein the solid particles comprise carbonsol.
13. The method of claim 1, 2, 7 or 8, wherein the
5 ganglioside is covalently affixed to the solid particles.
14. The method of claim 1, 2, 7 or 8, wherein the ganglioside is chosen from the group consisting of
10 GM1, GM2, GM3, GD1, GD2, GD3, GD1a, GD1b, GT1b or GQ1b.
15. The method of claim 1, 2, 7 or 8, wherein the ganglioside comprises total brain ganglioside
15 extract.
16. The method of claim 15, wherein the source of the extract is a bovid.
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- 20 17. The method of claim 1, 2, 7 or 8, wherein the ganglioside comprises tissue ganglioside extract.
18. The method of claim 1, 2, 7 or 8, wherein the antiganglioside antibody is an autoantibody.

19. The method of claim 1, 2, 7 or 8, wherein the antiganglioside antibody is chosen from the group consisting of anti-GM1, anti-GM2, anti-GM3, anti-GD1, anti-GD2, anti-GD3, anti-GD1a, anti-GD1b, anti-GT1b or anti-GQ1b.

20. A method of diagnosing whether a subject has autoimmune neuropathy, comprising quantitating the amount of an antibody directed against a ganglioside in the subject using the method of claim 7 or 8, wherein the presence of a predefined amount of the antibody indicates that the subject is suffering from autoimmune neuropathy.

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21. A method of diagnosing whether a subject that has Celiac disease suffers from autoimmune neuropathy, comprising quantitating the amount of an antibody directed against a ganglioside in the subject using the method of claim 7 or 8, wherein the presence of a predefined amount of the antibody indicates that the subject is suffering from autoimmune neuropathy.

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22. The method of claim 21, wherein the antibody is

directed against GM1.

23. The method of claim 21, wherein the antibody is directed against GD1a.

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24. The method of claim 20, wherein the neuropathy is Guillain-Barré syndrome.

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25. The method of claim 20, wherein the neuropathy is a Guillain-Barré syndrome variant.

26. The method of claim 20, wherein the neuropathy is a peripheral neuropathic disease.

15 27. The method of claim 20, wherein the neuropathy is a multifocal motor neuropathy.

20 28. A method of determining if a subject is predisposed to become afflicted with an autoimmune neuropathy, comprising quantitating the amount of an antibody directed against a ganglioside in the subject using the method of claim 7 or 8, wherein the presence of a predefined amount of the antibody indicates that the subject is predisposed to become afflicted with

an autoimmune neuropathy.

29. The method of claim 28, wherein the neuropathy is Guillain-Barré syndrome.

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30. The method of claim 28, wherein the neuropathy is a Guillain-Barré syndrome variant.

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31. The method of claim 28, wherein the neuropathy is a peripheral neuropathic disease.

32. The method of claim 28, wherein the neuropathy is a multifocal motor neuropathy.

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33. A method of determining if a subject with Celiac disease is predisposed to become afflicted with an autoimmune neuropathy, comprising quantitating the amount of an antibody directed against a ganglioside

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in the subject using the method of claim 7 or 8, wherein the presence of a predefined amount of the antibody indicates that the subject is predisposed to become afflicted with an autoimmune neuropathy.

34. The method of claim 33, wherein the antibody is

